

**REMARKS:**

The Official Action dated August 29, 2007 has been reviewed. Clarifying amendments have been made to claim 1.

Claims 1, 2, 4, 12 and 13 stand rejected as anticipated by the U.S. patent No. 3,993,048 of Francis under 35 U.S.C. § 102(b). The Francis patent describes an electrode arrangement 20 that includes a "housing" 12, in which an electrolyte 18 is held. A diaphragm 16 of cellophane 40 stretches across the otherwise open face of the housing 12. A platinum wire 20 connects to a mercury calomel mixture 14 in a non-conductive tube 32. A saline solution electrolyte 18 is contained in the housing 12 and extends from the diaphragm 16 to the mercury calomel mixture 14. Together the combination forms "an electrical half cell." The diaphragm 16 is said to be "ion conductive." Col. 2, line 24. Endeavoring to apply the elements of the Francis patent to the claims, the outstanding Official Action refers to the item 10 as the "electrode." It is true that the Francis patent refers to the "electrode 10." However, it is clear from the detailed description in the Francis patent that the "electrode 10" is the entire assembly, not just the element for "electrically contacting" the "measurement object" as in claim 1. At col. 2, lines 57 - 63, the Francis patent states:

The electrode 10 generally includes a housing 12, a mercury calomel mixture 14 in the housing, a diaphragm 16 mounted on the housing, and an electrolyte 18 held in the housing 12 by the diaphragm 16 and contacting the mercury calomel mixture 14. A platinum lead wire 20 is connected to the mercury calomel mixture 14.

In the Francis patent the ion conductive cellophane diaphragm 16 that contacts the subject's skin (the measurement object) does not correspond to the ion permeable electrode of claim 1 which in the preferred embodiment of this application is the element 5 of Fig. 1. In the Francis patent the

element that acts as the "electrode," as the term is used in the present application, would have to be the platinum lead wire 20.

Note that in claim 1 the ion permeable electrode is electrically connected to the measurement object. In the arrangement of the Francis patent this is not the case with the cellophane diaphragm which is of a nonconductive material. Rather the cellophane diaphragm serves to contain the electrolyte and permit ion permeation.

For the foregoing reasons, the Francis patent does not anticipate claim 1 of this application. Withdrawal of the rejection of claim 1 over the Francis patent is therefore respectfully requested.

Claims 2, 4 and 12 also stand rejected as anticipated by Francis. These claims are dependent from claim 1 and by their dependency incorporate the claim elements of that claim. For this reason, as well as for any additional patentable content, these claims are allowable over Francis. Their allowance is respectfully requested.

Independent claim 13, which also is rejected as anticipated by Francis, calls for "at least one measuring electrode for electrically contacting of a measurement object," and "the measuring electrode being at least partially permeable for the contact medium contained in the storage space so as to assure continuing reduced resistance electrical contact between the measuring electrode and the measurement object." As discussed above Francis does not provide an "at least partially permeable" measuring electrode for "electrically conducting" a measurement object. Consequently claim 13 is not anticipated by Francis and the rejection of this claim over Francis should, it is respectfully urged, be withdrawn.

Claim 1 stands further rejected as anticipated by the U.S. patent No. 3,590,810 of Kopecky. However claim 1 differs from the electrode arrangement of Kopecky in much the same manner as it differs from the Francis patent. Kopecky discloses an electrode arrangement (cf. figs. 1, 2) comprising a measuring electrode 6 ("metallic element"), a cavity filled with a contact medium 16 ("electrolyte") and a semi-permeable membrane 7. However the measuring electrode 6 itself is not semi-permeable. Instead, Kopecky provides the semi-permeable membrane 7. Therefore, like Francis, Kopecky does not disclose a measuring electrode arrangement in which the measuring electrode itself is semi-permeable. It is respectfully urged, then, that the rejection of claim 1 over the Kopecky patent be withdrawn and that claim be allowed.

Claims 2 - 4, 11/1 - 4 and 13 are dependent claims rejected as anticipated by Kopecky. These claims, by their dependency, incorporate the provisions of claims as discussed above and are therefore patentable over Kopecky on the same basis as claim 1 and should now be allowed.

Independent claim 13 also stands rejected as anticipated by Kopecky. However as pointed out above with respect to the Francis patent, claim 13 calls for an at least partial permeable measuring electrode for electrically contacting the measurement object. Like Francis, the Kopecky patent fails to meet this requirement. It is respectfully urged that this rejection also should be withdrawn and that claim 13 should be allowed at this time.

Claims 5 - 10 and 11/5 - 10 are rejected as unpatentable under 35 U.S.C. § 103 based on a combination of the Kopecky and U.S. patent No. 4,763,660 of Kroll et al. Claims 5 - 10 and 11/5 - 10 are also rejected under 35 U.S.C. § 103 as unpatentable over Kopecky in view of the U.S. patent No. 5,341,806 of Gadsby et al. As discussed above the Kopecky patent does not teach ion permeable measuring electrode of claim 1. Neither of the Kroll et al. and Gadsby et al.

patents teach the ion permeable measuring electrode for electrically contacting the measuring object. Consequently, neither the combination of Kopecky with Kroll et al. or the combination of Kopecky with Gadsby et al., will provide the measuring electrode of claim 1. And because claims 5 - 10 and 11/5 - 10 incorporate the features of claim 1 by their dependency, they patentably differ from Kopecky, Kroll et al. and Gadsby et al. since none of these teaches the measuring electrode of claim 1. In each case the two patents cannot be somehow combined to provide that which cannot be found in either. Withdrawal of the rejections of claims 5 - 10 and 11/5 - 10 and allowance of these claims is respectfully requested.

In conclusion it is believed that all claims now present in this application are allowable at this time. Favorable reconsideration of the application to that end is requested.

Applicant requests a two month extension of time for response to the outstanding Official Action through and including January 29, 2008. A check in the amount of \$920 covering the extension of time fee is enclosed. No further fee is believed required, however, authorization is given to charge any additional fees associated with this communication to Deposit Account No. 070135. A duplicate copy of this sheet is enclosed.

Any questions or suggestions regarding the application or the amended claims submitted herewith should be directed to the undersigned attorneys for applicant at the telephone number listed below or by email to the email address listed below.

Respectfully submitted,

**GALLAGHER & KENNEDY, P.A.**

A handwritten signature in black ink, appearing to read 'T D MacBlain', written in a cursive style.

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